1127-15

The British Journal for the Philosophy of Science

159

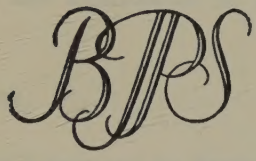
BJPS

VOLUME 13

1962/63

KRAUS REPRINT

The British Journal for the Philosophy of Science



Volume XIII
May 1962 to February 1963

Thomas Nelson and Sons Ltd Edinburgh 9
1963

KRAUS REPRINT
Nendeln/Liechtenstein
1968

Reprinted with the permission of the original publisher
by
KRAUS REPRINT
A Division of
KRAUS-THOMSON ORGANIZATION LIMITED
Nendeln/Liechtenstein
1968

Printed in Germany
Lessingdruckerei in Wiesbaden

Contents

ARTICLES, NOTES AND COMMENTS, DISCUSSIONS, MISCELLANEOUS

ARTICLES

	PAGE
The Epistemological Status of the Chemical Concept of Element (I) by F. A. Paneth	1
Achilles, the Tortoise, and Explanaton in Science and History by W. W. Bartley III	15
The Logic of Cosmology by Milton K. Munitz	34
The Use of Behavioural Language to Refer to Mechanical Processes by D. M. MacKay	89
Philosophical Aspects of Cosmology by R. Harré	104
Philosophical Aspects of Cosmology by W. Davidson	120
Psychological Explanation: The 'Private Data' Hypothesis by Michel Treisman	130
The Epistemological Status of the Chemical Concept of Element (II) by F. A. Paneth	144
Determinism or Indeterminism in Microphysics by R. D. Bradley	193
Empiricism, Solipsism, and Realism by H. C. Plaut.	216
The Statistical Nature of Quantum Mechanics by James Albertson	229
The Paradox of Confirmation by J. L. Mackie	265
Each and All by R. J. Diamond	278
Reliability of Informants by Jerzy Giedymin	287

PAGE

NOTES AND COMMENTS

A New Prediction Paradox 51
by M. Gardner

A Comment on the New Prediction Paradox 51
by K. R. Popper

The Refutability of 'Irrefutable' Laws 303
by J. O. Wisdom

DISCUSSIONS

Are Metaphysical Statements Confirmable? 52
by Roland Puccetti

Reply to Professor Puccetti 53
by J. W. N. Watkins

Discovering the Positron 54
by Ernest H. Hutten

A Reply to Dr Hutten 55
by Norwood Russell Hanson

A Reply to Lord Brain 161
by J. R. Smythies

A Reply to Professor Smythies 165
by Lord Brain

The Identity Hypothesis 167
by P. Achinstein

Corroboration and Rules of Acceptance 307
by I. Levi

The Supercomputer as Liar 313
by M. Scriven

Schlick's Treatment of Determinism 315
by H. Plaut

Discussion of Professor Paneth's Article 316
by J. Bradley

Letter on F. A. Paneth's Works and Translations 317
by Eva Paneth

MISCELLANEOUS

RECENT PUBLICATIONS ON THE PHILOSOPHY OF SCIENCE 262, 346

ANNOUNCEMENTS 187, 352

ABSTRACTS 188, 258

ERRATA AND CORRIGENDA 88

INDEX OF AUTHORS

ARTICLES

Albertson, James, *The Statistical Nature of Quantum Mechanics*, 229
Bartley III, W. W., *Achilles, the Tortoise, and Explanation in Science and History*, 15
Bradley, R. D., *Determinism or Indeterminism in Microphysics*, 193
Davidson, W., *Philosophical Aspects of Cosmology*, 120
Diamond, R. J., *Each and All*, 278
Giedymin, Jerzy, *Reliability of Informants*, 287
Harré, R., *Philosophical Aspects of Cosmology* 104
MacKay, D. M., *The Use of Behavioural Language to refer to Mechanical Processes*, 89
Mackie, J. L., *The Paradox of Confirmation*, 265
Munitz, Milton K., *The Logic of Cosmology*, 34
Paneth, F. A., *The Epistemological Status of the Chemical Concept of Element* (I), 1
Paneth, F. A., *The Epistemological Status of the Chemical Concept of Element* (II), 144
Plaut, H. C., *Empiricism, Solipsism, and Realism*, 216
Treisman, Michel, *Psychological Explanation: The 'Private Data' Hypothesis*, 130

NOTES AND COMMENTS

Gardner, M., *A New Prediction Paradox*, 51
Popper, K. R., *A Comment on the New Prediction Paradox*, 51
Wisdom, J. O., *The Refutability of 'Irrefutable' Laws*, 303

DISCUSSIONS

Achinstein, P., *The Identity Hypothesis*, 167
Bradley, J., *Discussion of Professor Paneth's Article*, 316
Brain, Lord, *A Reply to Professor Smythies*, 165
Hanson, Norwood Russell, *A Reply to Dr Hutten*, 55
Hutten, Ernest H., *Discovering the Positron*, 54
Levi, I., *Corroboration and Rules of Acceptance*, 307
Paneth, Eva, *Letter on F. A. Paneth's Works and Translations*, 317
Plaut, H., *Schlick's Treatment of Determinism*, 315
Puccetti, Roland, *Are Metaphysical Statements Confirmable?*, 52
Scriven, M., *The Supercomputer as Liar*, 313
Smythies, J. R., *A Reply to Lord Brain*, 161
Watkins, J. W. N., *Reply to Professor Puccetti*, 53

ARTICLE-REVIEWS

Hesse, Mary B., *On What there is in Physics*, 234
Martin, Anne, *Epistemology as Liberal Polemic*, 65
Teichmann, Max, *Psychoanalysis and Scientific Method*, 56
Wisdom, J. O., *On Broad's Contribution to Philosophy*, 70

REVIEWS

Bergmann, Gustav, *Meaning and Existence*, review by M. Przelecki, 87
Buytendijk, F. J. J., *Pain*, review by D. W. Forrest, 185
Caldin, E. F., *The Structure of Chemistry*, review by W. F. Coulson, 184
Churchman, C. W., and Ratoosh, P. (Eds.), *Measurement: Definitions and Theories*, review by G. W. Scott Blair, 85
Descartes, René, *Discourse on Method*, a new translation by A. Wollaston, review by A. M. Ritchie, 75
Ducasse, C. J., *A Critical Examination of the Belief in a Life after Death*, review by Corliss Lamont, 244
Francis, Roy G., *The Rhetoric of Science*, review by G. A. Barnard, 345
George, F. H., *The Brain as a Computer*, review by W. Ross Ashby, 341
Hamlyn, D. W., *Sensation and Perception*, review by R. J. Hirst, 186

Heisenberg, Werner, *The Physicist's Conception of Nature*, review by B. Dunham, 182
Koninck, Charles de, *The Hollow Universe*, review by R. F. J. Withers, 183
Körner, S., *The Philosophy of Mathematics*, review by R. Harré, 337
Kraft, Viktor, *Erkenntnislehre*, review by P. K. Feyerabend, 319
McKenzie, A. E. E., *The Major Achievements of Science*, review by H. G. Alexander, 82
Models and Analogues in Biology, review by M. Grene, 329
Money-Kyrle, R. E., *Man's Picture of his World*, review by Brigid Brophy, 253
Pap, Arthur, *An Introduction to the Philosophy of Science*, review by W. Kneale, 334
Pocock, D. F., *Social Anthropology*, review by I. C. Jarvie, 327
Samuel, Viscount and Professor H. Dingle, *A Threefold Cord: Philosophy, Science, Religion*, review by G. W. Scott Blair, 339
Schrödinger, Erwin, *Science Theory and Man*, review by H. R. Post, 80
Schütte, K., *Beweistheorie*, review by J. N. Crossley, 251
Thomson, Robert, *The Psychology of Thinking*, review by W. H. N. Hotopf, 344
Thorpe, W. H., *Biology, Psychology and Belief*, review by Marjorie Grene, 255
Turnbull, H. W. (Ed.), *The Correspondence of Isaac Newton Vol. III: 1688-1694*, review by G. J. Whitrow, 332
Unpublished Scientific Papers of Isaac Newton, review by G. J. Whitrow, 342
Waddington, C. H., *The Ethical Animal*, review by Marjorie Grene, 172
Warnock, G. J., *English Philosophy since 1900*, review by B. Dunham, 184
Weisheipl, James A., *The Development of Physical Theory in the Middle Ages*, review by William Kneale, 184
White, Morton, *Toward Reunion in Philosophy*, review by C. Lejewski, 323
Whitrow, G. J., *The Natural Philosophy of Time*, review by J. L. Synge, 177
Whyte, L. L., *The Atomic Problem*, review by B. C. Brookes, 180
Whyte, L. L. (Ed.), *Roger Joseph Boscovich, S.J., F.R.S., 1711-1787*, review by J. L. Synge, 248
Whyte, L. L., *Essay on Atomism: From Democritus to 1961*, review by G. J. Whitrow, 256
Wollaston, Arthur, a New Translation of Descartes, René, *Discourse on Method*, review by A. M. Ritchie, 75
Ziff, Paul, *Semantic Analysis*, review by N. L. Wilson, 181

The British Journal for the Philosophy of Science

FOUNDED BY

HERBERT DINGLE, Emeritus Professor of History and Philosophy of Science, University of London

SPONSORED BY

J. D. BERNAL, M.A., F.R.S. Professor of Physics, Birkbeck College, University of London

J. C. ECCLES, M.A., D.PHIL., F.R.S. Professor of Physiology, Australian National University, Canberra

Sir HAROLD JEFFREYS, M.A., D.Sc., F.R.S. Fellow of St John's College, and Emeritus Professor of Astronomy and Experimental Philosophy in the University of Cambridge

†E. A. MILNE, M.A., D.Sc., F.R.S. Rouse Ball Professor of Mathematics, University of Oxford

M. POLANYI, D.Sc., F.R.S. Emeritus Professor of Social Studies, Victoria University of Manchester

K. R. POPPER, M.A., PH.D., D.LIT. Professor of Logic and Scientific Method, London School of Economics, University of London

EARL RUSSELL (Bertrand Russell), O.M., M.A., F.R.S. Fellow of Trinity College, Cambridge; Nobel Laureate in Literature, 1950

†Sir CHARLES SHERRINGTON, O.M., G.B.E., M.A., M.D., D.Sc., F.R.S., F.R.C.P., F.R.C.S. Waynflete Professor of Physiology, University of Oxford; Nobel Laureate in Medicine, 1932

†E. SCHRÖDINGER, D.Sc., For.Mem.R.S. Senior Professor, Dublin Institute for Advanced Studies; Nobel Laureate in Physics, 1933

†CHARLES SINGER, M.A., M.D., D.LITT., D.Sc., F.R.C.P., F.S.A. Emeritus Professor of History of Medicine, University of London; Honorary Fellow of Magdalen College, Oxford

J. H. WOODGER, D.Sc. Emeritus Professor of Biology, Middlesex Hospital Medical School, University of London

†Sir EDMUND WHITTAKER, M.A., LL.D., D.Sc., F.R.S. Emeritus Professor of Mathematics, University of Edinburgh

EDITOR

J. O. WISDOM, PH.D. Reader in Logic and Scientific Method, The London School of Economics and Political Science, University of London

The British Society for the Philosophy of Science 1962–63

COMMITTEE

Professor R. B. BRAITHWAITE (*President*)
Professor W. C. KNEALE (*Vice-President*)
DR H. R. POST (*Hon. Secretary*)
MR B. C. BROOKES (*Hon. Treasurer*)
DR I. LAKATOS
MR R. F. J. WITHERS
MR F. T. C. HARRIS
MR W. MAYS (*representing Northern Group*)

† Deceased